

**WHAT IS CLAIMED IS:**

1                   1.       An expansible device for use in a body lumen or tract, the device  
2 comprising:

3                   a tubular member having a proximal end and a distal end;

4                   an expansible member disposed on the distal end of the tubular member, the  
5 expansible member having a contracted configuration and an expanded configuration  
6 comprising a conical shape; and

7                   a deformable membrane at least partially disposed over the expansible  
8 member in the expanded configuration.

1                   2.       The device of claim 1, further comprising deployment means  
2 coupleable to the proximal end of the tubular member, wherein the expansible member  
3 includes a straight portion extending from an apex of the conical shape to the deployment  
4 means.

1                   3.       The device of claim 1, wherein the expansible member comprises a  
2 coil or spring of wire.

1                   4.       The device of claim 3, wherein the wire has a diameter in a range from  
2 about 0.005 inch to about 0.012 inch.

1                   5.       The device of claim 3, wherein the coil or spring comprises 1 to 10  
2 loops, wherein a height between the loops is in a range from about 0.1 inch to about 0.5 inch.

1                   6.       The device of claim 1, wherein the expansible member comprises  
2 superelastic material or shape memory material.

1                   7.       The device of claim 1, further comprising a reference stop disposed  
2 between the deformable membrane and the distal end of the tubular member so as to control  
3 an angle of deflection of the membrane relative to the tubular member.

1                   8.       The device of claim 1, further comprising an additional expansible  
2 member disposed proximal the expansible member on the distal end of the tubular member,  
3 the additional expansible member having a contracted configuration and an expanded  
4 configuration comprising a cylindrical shape.

1                    9.        A method for sealing a puncture site:  
2                    providing an expansible device having a tubular member, an expansible  
3 member disposed on a distal end of the tubular member moveable between a contracted  
4 configuration and an expanded configuration, and a deformable membrane at least partially  
5 disposed over the expansible member in the expanded configuration;  
6                    inserting the expansible device in the puncture site;  
7                    deploying the expansible member to an expanded configuration comprising a  
8 conical shape.

1                    10.     The method of claim 9, wherein the expansible member includes a  
2 straight portion extending from an apex of the conical shape which is oriented away from the  
3 puncture site.

1                    11.     The method of claim 10, further comprising applying proximal tension  
2 to the straight section so that the expansible member is deformed into a disk shape  
3 configuration.

1                    12.     The method claim 11, further comprising applying increased proximal  
2 tension to the straight section so that the expansible member is deformed into an inverted  
3 conical shape configuration wherein the apex of the conical shape is oriented toward the  
4 puncture site.

1                    13.     The method of claim 9, wherein the puncture site comprises a blood  
2 vessel wall or tissue tract.

1                    14.     An expansible device for use in a body lumen or tract, the device  
2 comprising:  
3                    a tubular member having a proximal end and a distal end;  
4                    an expansible member disposed on the distal end of the tubular member, the  
5 expansible member having a contracted configuration and an expanded configuration;  
6                    a deformable membrane at least partially disposed over the expansible  
7 member in the expanded configuration; and  
8                    a reference stop disposed between the deformable membrane and the distal  
9 end of the tubular member.

1                   15.     The device of claim 14, wherein a proximal end of the deformable  
2 membrane is attached to the tubular member just proximal of the reference stop.

1                   16.     The device of claim 14, wherein the reference stop comprises a  
2 hypotube having a length in a range from about 0.01 inch to about 0.2 inch, an inner diameter  
3 slightly larger than an outer diameter of the tubular member, and an outer diameter in a range  
4 from about 0.001 inch to about 0.02 inch larger than the outer diameter of the tubular  
5 member.

1                   17.     The device of claim 14, wherein the deformable membrane comprises  
2 a spherical shape when the expansible member is in the expanded configuration.

1                   18.     The device of claim 14, further comprising an additional expansible  
2 member disposed proximal the expansible member on the distal end of the tubular member,  
3 the additional expansible member having a contracted configuration and an expanded  
4 configuration comprising a cylindrical shape.

1                   19.     An expansible device for use in a body lumen or tract, the device  
2 comprising:

3                   a tubular member having a proximal end and a distal end;

4                   a first expansible member disposed on the distal end of the tubular member,  
5 the first expansible member having a contracted configuration and an expanded  
6 configuration;

7                   a first deformable membrane at least partially disposed over the first  
8 expansible member in the expanded configuration;

9                   a second expansible member disposed proximal the first expansible member  
10 on a distal end of the tubular member, the second expansible member having a contracted  
11 configuration and an expanded configuration.

1                   20.     The device of claim 19, wherein the second expansible membrane has  
2 a cylindrical shape in the expanded configuration.

1                   21.     The device of claim 20, wherein a predetermined volume of air  
2 contained within the tubular member inflates the second expansible member so as to provide  
3 at least one of radial or axial expansion.

1                   22.     The device of claim 20, wherein the second expansible member  
2 comprises a coil or spring of wire.

1                   23.     The device of claim 22, wherein the coil has a diameter in a range from  
2 about 0.02 inch to about 0.2 inch and the wire has a diameter in a range from about 0.005  
3 inch to about 0.02 inch.

1                   24.     The device of claim 22, further comprising a second deformable  
2 membrane at least partially disposed over the second expansible member in the expanded  
3 configuration

1                   25.     The device of claim 24, further comprising ribs on a surface of the  
2 second deformable membrane.

1                   26.     The device of claim 19, wherein the second expansible member has a  
2 length in a range from about 0.1 inch to about 2.0 inches.

1                   27.     The device of claim 19, wherein the first deformable membrane  
2 comprises a spherical shape when the first expansible member is in the expanded  
3 configuration.

1                   28.     The device of claim 19, further comprising a reference stop disposed  
2 between the first deformable membrane and the distal end of the tubular member.

1                   29.     A method for sealing a puncture site:  
2                   providing an expansible device having a tubular member, a first expansible  
3 member disposed on a distal end of the tubular member, a first deformable membrane at least  
4 partially disposed over the first expansible member in an expanded configuration, and a  
5 second expansible member disposed proximal the first expansible member on the distal end  
6 of the tubular member;

7                   inserting the expansible device in the puncture site;

8                   deploying the first expansible member to an expanded configuration  
9 comprising a spherical shape;

10                  deploying the second expansible member to an expanded configuration  
11 comprising a cylindrical shape.

1                   30.     The method of claim 29, wherein the first and second expansible  
2 members are deployed sequentially.

1                   31.     The method of claim 29, wherein the first and second expansible  
2 members are deployed simultaneously.

1                   32.     The method of claim 29, wherein the first expansible member is  
2 deployed against a blood vessel wall.

1                   33.     The method of claim 29, wherein the second expansible member is  
2 deployed against a tissue tract.

1                   34.     The method of claim 29, wherein deploying the second expansible  
2 membrane comprises inflating the second expansible member with a predetermined volume  
3 of air.